Calculations for:	Made by	Date
South Park Bridge Replacement Project	E. Evans	6/5/2009
	Checked by M. Freas	Date 6/30/2009
	Backchecked by	Date

Vertical Stopping Sight Distances and Design Speeds

Direction Forward

Vertical Alignment: SPB

PVI	PVI	VC	Forward	SSD (#1)		Design Speed (mph)			Min. VCL		Ahead		
Station	Elevation	Length	Grade	K	SSD (ft)		De	sign	Exist.	Req'd	per	Sag	Tangent
Initial Tangent Grade =				Rural Urbar		Rural	ral Urban			D.S.	Comfort	Length	
23+40.00	19.50		-0.40%	(no VC)						35			75.00'
24+15.00	19.20		-0.20%	(no VC)						35			68.00'
24+83.00	19.06		0.33%	(no VC)						35			67.00'
26+75.00	19.69	250.00'	5.00%	54, Sag	268'	268'	36.7	36.7	40.9	35	105'	123'	362.50'
34+00.00	55.94	475.00'	-5.00%	-47, Crest	251'	320'	33.7	39.5	46.7	35	105'		379.50'
41+47.00	18.57	260.00'	-0.20%	54, Sag	270'	270'	35.4	35.4	41.1	35	105'	127'	173.00'
44+50.00	17.96		-0.47%	(no VC)						35			60.00'
45+10.00	17.68			(no VC)						35			-

Notes:

Template Dated 10/20/2006

¹⁾ The Stopping Sight Distance and Design Speed calculations are based on WSDOT Design Manual, Chapter 650, dated May 2006.

²⁾ The minimum vertical curve length calculations are based on WSDOT Design Manual, Chapter 630, dated May 2004.